

Abstract

A steel sheet with a thickness of at least 0.30 mm is made of an ultra-low carbon steel with a chemical composition including C: at most 0.010%, Si: at most 0.5%, Mn: at most 1.5%, P: at most 0.12%, S: at most 0.030%, Ti: at most 0.10%, Al: at most 0.08%, and N: at most 0.0080%. The total number of non-metallic inclusions observed under a microscope in sixty fields in a sample prepared in accordance with JIS G0555 is at most 20. During manufacture of the steel, the amount of FeO + MnO in slag in a ladle at the time of continuous casting is controlled to at most 15%, and the throughput at the time of casting is made at most 5 tons per minute. The steel sheet does not develop pin hole defects or press cracks caused by inclusions when used for applications such as motor housings or oil filter housings requiring severe press forming.